

## ABSTRACT OF THE DISCLOSURE

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A high integrity, reliable liner is disclosed for a via in which a titanium aluminide layer is preformed as a lining within a via hole prior to deposition of other conductive materials within the via hole. The conductive materials deposited on the preformed titanium aluminide can be either a secondary barrier layer portion of the liner, such as a titanium compound layer, which in turn has a metal plug deposited thereon, or, alternatively, a metal plug directly deposited on the titanium aluminide layer. An important advantage achieved by the present invention is that a via is formed with a substantial elimination of void formation. The enhanced vias are useful in a wide variety of semiconductor devices, including SRAMS and DRAMs.